

## **REMARKS**

As of the 10 July 2008 *Office Action*, Claims 1-13, 45-46, 49-53 are pending in the Application. In the *Office Action*, the Examiner rejects all pending claims. The Applicant thanks the Examiner for careful examination given to the Application. By this *Supplemental Response*, Applicant amends certain claims to clarify the currently claimed embodiments of the invention. No new matter is believed introduced in this submission as at least ¶[0037] of the *Specification* fully supports the subject matter of the amendments. (see U.S. Patent Application Publication No. 2002/0170648).

Applicant submits this response solely to facilitate prosecution. As such, Applicant reserves the right to present new or additional claims in this Application that have similar or broader scope as originally filed. Applicant also reserves the right to present additional claims in a later-filed continuation application that have similar or broader scope as originally filed. Accordingly, any amendment, argument, or claim cancellation presented during prosecution is not to be construed as abandonment or disclaimer of subject matter.

After entry of this *Supplemental Response*, Claims 1-9, 11-13, 45-46, 49-50, and 52-53 are pending in the Application. Applicant respectfully asserts that the pending claims are in condition for allowance over the references of record, and respectfully requests reconsideration of the claims in light of this submission. Applicant, accordingly, believes that the Application is allowable for at least the following reasons.

### **I. Examiner Interview Summary**

On 14 January 2009, the undersigned conduct an interview with the Examiner to discuss the Application. The Applicant thanks the Examiner for his time. During the interview, the undersigned demonstrated to the Examiner why modifying the panel element disclosed in U.S. Patent No. 3,284,980 to Dinkel (“Dinkel”) with the adhesive layer disclosed in U.S. Patent No. 6,931,809 to Brown et al. (“Brown”) would not yield the claimed invention. In particular, the undersigned explained that removing one of Dinkel’s mesh members and replacing it with Brown’s adhesive layer would weaken Dinkel’s panel, and therefore not be obvious. The Examiner did not present a counter argument and indicated he would consider the issue when reviewing the *Supplemental Response*. Further, the undersigned and the Examiner discussed the specific composition and construction of the claimed web and potential claim amendments

reciting such features. Regarding the rejection of claims 4, 5, 6, 10, 11, and 12, the undersigned indicated that the rejection was unclear because the Examiner appeared to suggest adding two different reinforcement webs to Dinkel's panel. The Examiner indicated that the rejections of these claims incorrectly related to modifying the composition of the mesh in the upper surface rather than the composition the web, as recited in the Claims. The Examiner indicated that he would reconsider the rejections. Applicant submits that this is a full and accurate account of the interview and invites the Examiner to provide a supplemental summary if believed to be necessary.

## **II. Rejections Under 35 U.S.C. §103**

In the *Office Action*, Claims 1-3, 7-9, 13, 49-53 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Dinke in view of U.S. Patent Application Publication No. 2001/0000738 to Mathieu ("Mathieu") and Brown.

Claims 4 and 10 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Dinkel, in view of Mathieu and Brown, further in view of U.S. Patent No. 3,887,952 to Nicoll Jr. ("Nicoll").

Claims 5 and 11 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Dinkel, in view of Mathieu and Brown, further in view of U.S. Patent No. 4,828,635 to Flack et al. ("Flack").

Claims 6 and 12 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Dinkel, in view of Mathieu and Brown, further in view of U.S. Patent No. 4,450,022 to Galer ("Galer").

Claims 45-46 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Dinkel in view of Brown.

On page 7, the *Office Action* also indicates that Claims 45-46 are rejected under 35 U.S.C. § 103(a) as being unpatentable Mathieu in view of U.S. Patent No. 4,882,888 to Moore ("Moore"). The *Office Action*, however, does not contain a discussion of this rejection. Therefore, Applicant in good faith believes that Claims 45-46 are not actually rejected as being unpatentable over Mathieu in view of Moore, and that the *Office Action* contains a typographical error. Consequently, this rejection will not be further addressed.

The USPTO's *Examination Guidelines For Determining Obviousness* ("*Obviousness Guidelines*") implement the Supreme Court's recently reaffirmed "functional approach" to

obviousness determinations, which dictates that “[W]hen considering obviousness of a combination of known elements, the operative question is thus ‘whether the improvement is more than the *predictable use* of prior art elements according to their *established functions*.’” (Examination Guidelines For Determining Obviousness, 72 Fed. Reg. 57527 (Oct. 10, 2007), citing *KSR Int’l Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1740 (2007).)

The *Obviousness Guidelines* further state that “[T]he key to supporting any rejection under 35 U.S.C. 103 is the *clear articulation* of the reason(s) *why* the claimed invention would have been obvious.” (*Id.* at 57528).

The *Obviousness Guidelines* clearly reflect the Federal Circuit’s requirement that “[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some *articulated reasoning* with some rational underpinning to support the legal conclusion of obviousness.” *In Re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006).

Claims 1-13, 45-46, 49-53 are patentable because the cited combinations do not teach or suggest *all the claim features*. Further, the features recited in pending claims are not a predictable use of the combined teachings of the cited references.

***a. Claims 1-9 and 11-13 Are Patentable Over The Cited References***

Claims 1 and 8 recite features not disclosed in or taught by the cited references. In particular, Claims 1 and 8 recite a non-adhesive impervious non-cementitious reinforcement web disposed on a lower principal surface of a cementitious core in its plastic state. The cited references fail to teach or disclose this feature.

As the Examiner acknowledges on page 3 of the *Office Action*, Dinkel discloses a construction element having a reinforcement mesh embedded into the lower principal surface, and does not disclose an impervious non-cementitious reinforcement web. The Examiner alleges that an adhesive layer (element 3) disclosed in Brown corresponds to the claimed reinforcement web. Further, the Examiner states that it would have been obvious to remove Dinkel’s reinforcement mesh in the lower principal surface and place Brown’s adhesive layer on said surface to arrive at the claimed invention. Applicant respectfully disagrees with the Examiner’s conclusions.

Brown’s adhesive layer cannot be correlated to the claimed reinforcement web. Brown’s adhesive layer comprises an acrylic *adhesive* agent applied to the surface of an insulation panel attaching said panel to a building sheathing. (Brown, Col. 3, Lns. 18-40). Claims 1 and 8,

however, specifically recite that the reinforcement web is *non-adhesive*. Claims 1 and 8 also recite that the web is attached to core in its plastic state and adheres to the core due to the bonding forces generated as the core hardens. Brown's adhesive layer cannot be applied to the core in its plastic state because the layer itself is an adhesive. Further, Claim 8 recites that the web is an alkaline resistant polymer. Brown fails to disclose that its adhesive layer is an alkaline resistant polymer.

Claim 4 recites the reinforcement web comprising a water impervious paperboard. On page 5 of the *Office Action*, the Examiner acknowledges that Dinkel, Mathieu, and Brown fail to disclose a reinforcement web comprising water impervious paperboard. The Examiner alleges that it would have been obvious to further modify Dinkel's panel, as already modified by the Examiner, to include paperboard as disclosed by Nicoll. As discussed above, the modification adding an impervious paperboard suggested by the Examiner relates to the reinforcing mesh in upper surface rather than reinforcement web in the lower surface. Indeed, it is unclear exactly how Dinkel could be modified to include Nicoll's paperboard as a lower reinforcement web after the suggested modification of adding Brown's adhesive layer as a lower reinforcement web. Consequently, the cited references do not teach a reinforcement web comprising water impervious paperboard. Therefore, Applicant respectfully submits that the cited references fail to teach the claimed panel having a paperboard reinforcement web.

Claims 5 and 11 recite the reinforcement web comprising spunbonded olefin. On page 6 of the *Office Action*, the Examiner acknowledges that Dinkel, Mathieu, and Brown fail to disclose a reinforcement web comprising spunbonded olefin. The Examiner alleges that it would have been obvious to further modify Dinkel's panel, as already modified by the Examiner, to include spunbonded as disclosed by Flack. As discussed above, the modification adding a spunbonded olefin suggested by the Examiner relates to the reinforcing mesh in upper surface rather than reinforcement web in the lower surface. Indeed, it is unclear exactly how Dinkel could be modified to include Flack's olefin as a lower reinforcement web after the suggested modification of adding Brown's adhesive layer as a lower reinforcement web. Consequently, the cited references do not teach a reinforcement web comprising spunbonded olefin. Therefore, Applicant respectfully submits that the cited references fail to teach the claimed panel having a paperboard reinforcement web.

Claims 6 and 12 recite the reinforcement web comprising an alkaline resistant dense polymer fiber mat. On page 6 of the *Office Action*, the Examiner acknowledges that Dinkel, Mathieu, and Brown fail to disclose a reinforcement web comprising an alkaline resistant dense polymer fiber mat. The Examiner alleges that it would have been obvious to further modify Dinkel's panel, as already modified by the Examiner, to include an alkaline resistant dense polymer fiber mat as disclosed by Galer. As discussed above, the modification adding a fiber mat suggested by the Examiner relates to the reinforcing mesh in upper surface rather than reinforcement web in the lower surface. Indeed, it is unclear exactly how Dinkel could be modified to include Galer's mat as a lower reinforcement web after the suggested modification of adding Brown's adhesive layer as a lower reinforcement web. Consequently, the cited references do not teach a reinforcement web comprising an alkaline resistant dense polymer fiber mat. Therefore, Applicant respectfully submits that the cited references fail to teach the claimed panel having a paperboard reinforcement web.

For at least these reasons, the cited references, alone or in combination, fail to disclose, teach or suggest each and every feature of Claims 1 and 8. Thus, Applicant respectfully submits that Claims 1 and 8 are patentable over the cited references, and are in condition for allowance. Further, Claims 2-7, 9, and 11-13 are also believed to be in condition for allowance at least due to their dependence upon Claims 1 and 8, and further features defined therein.

***b. Claims 45-46, 49-50, and 52-53 Are Patentable Over The Cited References***

Claim 45 recites features not disclosed in the cited references. In particular, Claim 45 recites that the lower stratum of the construction panel ***consists*** of a reinforcement web layer. The lower stratum of Dinkel's panel, however, consists of an imbedded mesh material. On page 7 of the *Office Action*, the Examiner alleges that it would have been obvious to include Brown's adhesive layer in Dinkel's lower stratum to provide a water-resistant layer. The Examiner does not, however, provide a rationale for removing the mesh material from Dinkel's lower stratum. In fact, removing the mesh material from Dinkel's lower stratum and merely replacing it with Brown's adhesive layer would not have been obvious. Dinkel's mesh layer provides structural support to the panel, whereas Brown's adhesive layer merely assists in attaching a panel to a surface. Clearly, removing Dinkel's mesh material and replacing it with Brown's adhesive layer, as suggested by the Examiner, would in fact weaken Dinkel's panel. Consequently, one of ordinary skill in the art would not attempt such a modification nor would it be obvious since it in

fact renders Dinkel's panel less fit for its intended purpose. Therefore, the cited references fail to disclose a construction panel as recited in Claim 45.

Claim 45 also recites that the web is non-adhesive. In contrast, Dinkel's web resulting from the modification with Brown suggested by the Examiner would clearly be adhesive. Additionally, Claim 45 recites that the web is bonded to the core as the core hardens. As discussed above, this type of bond could not be achieved with Brown's adhesive layer. Further, Claim 45 recites that the web consists of flashspun high-density polyethylene fibers (Tyvek®). Brown's adhesive layer does not consist of such fibers.

Claims 52 and 53 also recite that the web is non adhesive, unlike Brown's adhesive layer. Claim 52 recites that the web is alkaline resistant, a feature not disclosed by Brown. Claim 53 recites that the web is composed of nonwoven spunbonded olefin fibers, a composition also not disclosed by Brown. Claims 52 and 53 also recite that the web is disposed and bonded to the core in its plastic state, which Brown's adhesive layer is incapable of. Further, unlike Dinkel, the panels of Claim 52 and 53 do not have mesh in their lower surface. As discussed above, the Examiner has not provided a rationale for removing Dinkel's mesh on one side of the panel and replacing it with a web as recited in the Claims. Therefore, Applicant respectfully submits that Claims 52 and 53 recite features not disclosed in the cited references.

For at least these reasons, the cited references, alone or in combination, fail to disclose, teach or suggest each and every feature of Claims 45, 52, and 53. Thus, Applicant respectfully submits that Claims 45, 52, and 53 are patentable over the cited references, and are in condition for allowance. Further, Claims 46 and 49-50 are also believed to be in condition for allowance at least due to their dependence upon Claim 45, and further features defined therein.

### **III. Fees**

Applicant files this *Supplemental Response* in conjunction with the *Response* filed on 12 January 2009 within six months of the *Office Action*, for which a three month extension of time fee was paid. Thus, Applicant believes that no additional extension of time fee is due. No additional claim fees are believed due. The Commissioner is authorized, however, to charge any fees that may be required, or credit any overpayment, to Deposit Account No. 20-1507 for full acceptance of this submission, and to keep the Application pending.

#### **IV. Conclusion**

This *Supplemental Response* is believed to be a complete response pursuant to 37 CFR §1.121. Applicant respectfully submits that after entry of this *Response* the Application is fully in condition for allowance. The Examiner is invited to contact the undersigned should any other issues remain prior to the allowance of this Application. Early and favorable action is respectfully requested.

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Respectfully submitted,

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